

# CISE Postdoctoral Research Associates in Experimental Computer Science

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## Program Announcement

Directorate for Computer and Information Science and Engineering

**DEADLINE:** First Friday in December for 1997 and  
First Friday in November each year thereafter



NATIONAL SCIENCE FOUNDATION

## **CISE Postdoctoral Research Associates in Experimental Computer Science**

The Computer and Information Science and Engineering (CISE) Directorate of the National Science Foundation plans a limited number of grants for support of Postdoctoral Research Associateships. A central goal of this program is to provide opportunities for new doctoral degree recipients to broaden their knowledge through a change in institution or advisor(s). Thus, proposals in which the recipients research experience will clearly be broadened are given preference.

Associateships in Experimental Computer Science (ECS Associates) will be supported by the CISE Directorate. The objective of the ECS Associateship awards is to increase expertise in experimental computer science and engineering by providing opportunities for associates to work in established laboratories performing experimental research in computer science and engineering.

These awards provide opportunities for recent Ph.D.s to broaden their knowledge and experience and to prepare them for significant research careers on the frontiers of experimental computer science. It is assumed that ECS Associates will conduct their research in academic research institutions or other institutions devoted to experimental computer science in one or more of the research areas supported by the CISE Directorate.

### **Who may submit**

Universities, colleges, and other research institutions as described in the Grant Proposal Guide (GPG), (NSF 98-2) are eligible to submit proposals to this program. The institution should have an established laboratory performing research in CISE experimental areas, as described in the Guide to Programs, NSF 97-30. Associateship awards will be based on proposals submitted by the sponsoring institution. The principal investigator will serve as an unreimbursed scientific advisor for the research associate. Research associates should not be listed as co-principal investigators. Each proposal must include a research and training plan for the proposed research associate in experimental research supported by the CISE Directorate. To be eligible for this support, individuals must: (1) be eligible to be appointed as a research associate or research assistant professor in the institution which has submitted the proposal, (2) have received the doctoral degree less than 3 years before the proposal deadline or fulfill the requirement for the doctoral degree in computer science and engineering, or a closely related discipline by September 30, of the year following the submission deadline.

## **Award Amounts, Stipends and Research Expense Allowances**

Ten (10) awards may be given that can range from \$42,000-\$66,000 for a 24 month period. The award will include \$40,000-\$64,000 to support the Research Associate (the sponsoring institution must match with at least 33%) and an allowance of \$2,000 to the sponsoring institution, in lieu of indirect costs, as partial reimbursement for expenses incurred in support of the research. The award to the Research Associate will be composed of two parts: a stipend (salary and benefits) that can range from \$38,000-\$60,000, and a \$4,000 research expense allowance expendable at the Associate's discretion for travel, publication expenses, and other research-related costs. There is no allowance for dependents. The effective date of the award cannot be later than fourteen months from the submission deadline.

### **Matching Funds**

The institution must match at least one third of the NSF award on a dollar-for-dollar basis excluding the \$2,000 granted in lieu of indirect costs. Matching fund arrangements are the responsibility of the submitting institution and must be detailed in the budget request. Funds must come from non-federal sources.

### **Evaluation and Selection**

Proposals will be reviewed by panel in accordance with established Foundation procedures and the general criteria described in the GPG brochure. The review panel will consider:

- the PI's research record, ability, accomplishments, and potential
- the quality and significance of past research
- the likely impact of the proposed postdoctoral training and research on experimental computer science
- the broadening experience provided to the postdoctoral associate, by the change in institution, advisor, or research area
- the adequacy of the sponsoring institution's access to experimental computational resources
- the potential gain for the research of the PI and the institution

In particular, the panel will address the following new NSF merit review criteria, as specified in GPG (NSF98-2).

### **Criterion 1. What is the intellectual merit of the proposed activity?**

Potential considerations: How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, please comment on the quality of prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to the necessary resources?

### **Criterion 2. What are the broader impacts of the proposed activity?**

Potential considerations: How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

## **Application Procedures and Proposal Materials**

To be eligible for consideration, a proposal must contain forms which can be found in the GPG brochure. Required are a Supplementary Application Information Form (NSF Form 1225-one copy), a Current and Pending Support Form (NSF Form 1239-one copy) to be completed by the Principal Investigator (the scientific advisor), and one original and twelve copies of:

- (a) Cover page with institutional certificates (NSF Form 1207). Title should indicate the Division within CISE where the research most likely falls.
- (b) Budget (NSF Form 1030).
- (c) Statement with details regarding matching funds and their source.
- (d) Statement of results from prior NSF support (of the Principal Investigator) related to the proposed research.
- (e) Proposal abstract, less than 250 words, of the training and research plan.
- (f) Training and research plan (not to exceed three

single-spaced typewritten pages). This should propose research which could be carried out during the award period. The research plan should show the broadening aspects of the proposed research.

- (g) Statement from the proposed Principal Investigator indicating the nature of the postdoctoral supervision to be given if the award is made and the potential gain for the PI's research and for the lab/department, college or institutions.
- (h) Statement from the Advisor clearly describing the computing facilities and resources that will be available to support the proposed research.

Please note that the research description page limit is less than the research description page limit specified in GPG. All application materials must be:

- (1) received by NSF no later than the deadline date which is the first Friday in December for 1997 and the first Friday in November each year thereafter; or
- (2) be postmarked no later than five (5) days prior to the deadline date; or
- (3) be sent via commercial overnight mail no later than two (2) days prior to the deadline date, to be considered for award. Send completed proposals with supporting application materials to:

National Science Foundation - PPU  
Announcement No. NSF  
4201 Wilson Blvd.  
Arlington, VA 22230

## **Other Requirements**

Once the postdoctoral candidate has been identified, the PI should notify the Program Director and forward his/her resume after awardee has been notified.

## **ADDITIONAL INFORMATION**

The brochure **Grant Proposal Guide** (NSF 98-2) and **NSF Guide to Programs** (NSF 97-30) are available at no cost from:

NSF Clearinghouse  
P.O. Box 218  
Jessup, MD 20794-0218

Telephone number: (301) 947-2722, e-mail address for

tact the Program Director for the Postdoctoral Program at (703) 306-1980 (e-mail:espd@nsf.gov).

The Foundation provides awards for research and educational activities in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for such findings or their interpretation.

The Foundation welcomes proposals on behalf of all qualified scientists and engineers, and strongly encourages women, minorities, and persons with disabilities to compete fully in any of the research and research-related programs described in this document.

NSF has TDD (Telephone Device for the Deaf) capability which enables individuals with hearing impairments to communicate with the Division of Human Resource Management for information relating to NSF programs, employment, or general information. This number is (703) 306-0090.

In accordance with Federal statutes and regulations and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

**Facilitation Awards for Scientists and Engineers with Disabilities (FASED)** provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff) to work on an NSF project. See the program announcement (NSF 91-54) or contact the program coordinator at (703) 306-1636.

Programs described in this publication are in Category 47.070 (Computer and Information Science and Engineering) in the Catalog of Federal Domestic Assistance.

**Privacy Act and Public Burden.** The information requested on proposal forms is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified proposals and may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant institutions/grantees; to provide or obtain data regarding the application review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers as necessary to complete assigned work; and to other government agencies in order to coordinate programs. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, 60 Federal Register 4449 (January 23, 1995), "Reviewer/Proposal File and Associated Records," 59 Federal

Register 8031 (February 17, 1994). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of your receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to:

Gail A. McHenry  
Reports Clearance Officer  
Information Dissemination Branch  
National Science Foundation  
4201 Wilson Boulevard  
Arlington, VA 22230

And to:

Office of Management and Budget  
OIRM - Paperwork Reduction Project (3145-0058)  
Washington, DC 20503

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